DECK BUILDERS OTTAWA

Stairs & Handrails

Rise, run and tread limits for deck stairs in Ontario, when handrails are required, and guards on stair sides

4 Expert Answers from Deck IQ

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Q1

Handrail clearance from a rough brick wall on Ottawa deck stairs?

Leave 60 mm: the 2024 Ontario Building Code sets that clearance between the back of the handrail and a rough or abrasive surface, under section 9.8.7.5(1). If the wall behind the handrail is smooth, the minimum drops to 50 mm.

If the brick behind the handrail is rough or abrasive, the 60 mm figure is the one to design to.

A few things shape how this plays out on your stair run. Required handrails are 865 mm to 1 070 mm high, under section 9.8.7.4(2). On exterior stairs serving a single dwelling unit, a handrail is only required where there are more than three risers, under section 9.8.7.1. If your stair has three risers or fewer, the Code does not require one at all, though you may still choose to install one.

Put the handrail height and its clearance on the drawings rather than leaving them to the installation day.

If the stair is part of a deck that sits more than 600 mm (24 in.) above the adjacent grade and is attached to or next to the house, a building permit is required under the City of Ottawa's rules. The permit drawings must show stair construction and location, rise and run, and guard and handrail information. The City's framing and final inspections are booked 48 hours in advance.

If you have not yet confirmed whether your project needs a permit, that is the right place to start: contact the City of Ottawa's Building Code Services with your deck height and whether the stair is attached to the house.

Q2

What rise and run should my Stittsville deck stairs use?

For exterior stairs serving a single dwelling unit, the 2024 Ontario Building Code sets the rise between 125 mm and 200 mm, and the run at a minimum of 255 mm and a maximum of 355 mm. Each rectangular tread's depth must be no shallower than the run and no deeper than the run plus 25 mm.

Those are the outer limits. Where your stairs actually land within that range depends on a few things specific to your deck.

The height from your deck's walking surface to the ground and the space available below it shape the stair design, and your designer or builder works that out on the drawings. For applications deemed complete on or after March 11, 2026, both Zoning By-law 2008-250 and By-law 2026-50 apply, with the most restrictive provisions governing, so confirm with the City how the rules treat the stairs on your lot.

A permit is required if your deck's walking surface is more than 600 mm (24 in.) above adjacent grade and the deck is attached to or adjacent to the house, or if it is an elevated deck providing principal access to the building. Where a permit applies, the City of Ottawa asks for drawings that show stair construction and location, rise and run dimensions, and guard and handrail information. The City requires three inspections: Excavation/Foundations, Framing, and Final, booked 48 hours in advance.

On handrails: exterior stairs serving a single dwelling unit with three risers or fewer do not require a handrail under the 2024 Ontario Building Code. More than three risers requires one handrail, and it must sit between 865 mm and 1 070 mm above the stair. If the stairs have a guard, the guard height on the stair is measured vertically from the top of the guard down to a line drawn through the tread nosings, and openings in that guard must prevent the passage of a 100 mm sphere. The triangle formed by the riser, tread and bottom rail must prevent the passage of a 150 mm sphere.

Before any footing holes are dug for the stair stringers or posts, submit a locate request through Ontario One Call at least five business days ahead. It is free and required by the Ontario Underground Infrastructure Notification System Act, 2012.

A few things worth confirming with your builder or designer before the drawings are finalised: the exact number of risers given your measured total rise, where the bottom landing sits relative to your property lines, and who is responsible for submitting the permit application and booking the three City inspections.

Make sure you have the permit in hand, a complete set of signed drawings showing the rise, run and stair location, and a written contract that spells out the full scope and price before any work begins on site.

Q3

Deck stairs with 3 risers in Ontario: handrail needed?

No handrail is required on exterior stairs serving a single dwelling unit that have not more than 3 risers. That is the rule in the 2024 Ontario Building Code, section 9.8.7.1.

Once the stair has more than 3 risers, one handrail is required on exterior stairs serving not more than one dwelling unit, and required handrails are 865 mm to 1 070 mm high. That height range comes from section 9.8.7.4(2) of the 2024 Ontario Building Code. If the surface behind the handrail is rough or abrasive, clearance behind it must be at least 60 mm; otherwise 50 mm, per section 9.8.7.5(1).

A few things still apply to a 3-riser stair even without a handrail requirement:

- Each rise must be between 125 mm and 200 mm, and each run between 255 mm and 355 mm, per Ontario Table 9.8.4.1 for private stairs.
- A rectangular tread's depth must be no shallower than its run and no deeper than its run plus 25 mm, per section 9.8.4.2(2).
- If the drop from the stair or landing to the ground within 1.2 m of the edge is more than 600 mm (24 in.), a guard is required on that side under section 9.8.8.1(1). Measure it for your stair.

On the permit question: if the deck itself is attached to the house and its walking surface is more than 600 mm above adjacent grade, a permit is required by the City of Ottawa regardless of stair count. If the deck is an elevated one providing principal access to the building, a permit is required as well. The permit drawings show the stair construction and location. The City's required inspections include a framing inspection at completion of structural framing and guards, and a final inspection at completion of framing, stairs and guards.
If anyone needs to dig for footings, a locate request through Ontario One Call must be submitted at least 5 business days before digging starts.

Before you choose a builder, check that each written quote spells out the same things: what the footing or pile type is and how deep, which board material is specified, how the guards and stair details are described, and whether removal of an existing deck is included or listed as an extra.

Q4

Deck stair tread depth limits in Ontario?

Under Ontario's 2024 Building Code, a private exterior stair tread has a minimum run of 255 mm and a maximum run of 355 mm. A rectangular tread must be no shallower than its run and no deeper than its run plus 25 mm.

Those numbers come from Ontario Table 9.8.4.1 and section 9.8.4.2(2), which apply to private stairs, including exterior stairs serving a single dwelling unit. The rise rules sit alongside them: minimum 125 mm, maximum 200 mm per step.

A few things shape how those numbers play out on your deck:

- The tread depth rule is tied to the run: a tread can be up to 25 mm deeper than the run, never shallower.
- The rise and run together determine how many steps you need and how far the stair lands from the deck. A shallower rise with a longer run means the stair travels further into the yard.
- Once there are more than three risers, one handrail is required on exterior stairs serving not more than one dwelling unit, and required handrails are 865 mm to 1 070 mm high.
- Guards are required alongside the stair where the drop beside the stair exceeds 600 mm within 1.2 m of the edge, and those guards must meet the no-climb rule between 140 mm and 900 mm above the walking surface.

If your deck needs a building permit, the permit drawings must show the stair rise and run, the guard and handrail heights, and the stair location on the framing plan. The City of Ottawa lists those as required elements on the elevation drawings.
Whether a permit is needed depends on the deck's height above grade, whether it is attached to the house, and whether it is the principal access to the building. A deck with a walking surface more than 600 mm (24 in.) above adjacent grade and attached to the house requires a permit regardless of size.

Your builder or a designer is the right first call, because they can work out the rise and run combination that fits your deck height, the available landing space and the permit drawings in one step, rather than designing the stair and the drawings separately.

Disclaimer: This guide is provided for informational purposes only by Deck Builders Ottawa. It does not constitute professional advice. Always consult qualified contractors and your local building authority (the City of Ottawa's Building Code Services) before starting any deck project. Decks in Ottawa are built under the 2024 Ontario Building Code (O. Reg. 163/24) and the City's permit and zoning rules. Information is current as of November 15, 2026 and may change. Visit **deckbuildersottawa.ca** for the latest answers.